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ULCERATIVE ENDOCARDITIS: EMBOLISM OF THE ARTERIES OF THE LEFT LEG.

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THE patient was an unmarried lady thirty-two years of age. She was always well till March, 1868, when she had an attack of acute rheumatism, beginning in the ankles, but soon involving the heart, as was shown by palpitation and pain in the cardiac region. There was so much dyspnœa that she was not allowed to walk up-stairs for four months, and the cardiac symptoms were more or less marked for two years. There was also some cough at the time. In January, 1869, she had another attack, not so severe as the first, and there were occasional pains in the chest and shoulders afterwards, particularly if she took cold. Though the dyspnœa did not increase unless she had rheumatism, it was noticeable, particularly on exertion. There was never any œdema. With the exception of the above symptoms, and pain in various parts of the body from time to time, she had no serious illness until the attack which caused her death. She was, however, subject to sick-headaches, in which there was unilateral pain and dimness of vision, the attacks lasting sometimes several days.

In November, 1873, while traveling in the cars, she was alarmed by increased pulsation of the heart, and a sensation as if it were higher up than usual. The pulse was 76, and somewhat full. The pulsation of the heart was felt perhaps a little farther to the left than usual, and was strong. There was a well-marked souffle at and near the apex, heard just before the shock of the first sound. There was nothing, however, which required more than a single visit, and she continued as well as usual, with occasional slight ailments.

During the year preceding the final attack the appetite, though not great, was sufficient, and she sometimes complained of feeling weak, but there were causes for depression of spirits, and she took a very active part in many good works.

On March 24, 1877, she reported that on the night of the 22d she began to feel pain in the head and left side of the chest, in the thighs,

and calves of the legs. The cheeks were red, and there was heat in the top of the head. The appetite had failed, and there was dryness of the mouth, but no thirst. Pulse 76 to 80. On examination of the heart the *souffle* previously described was still heard. Salicylic acid was ordered in doses of ten grains once in two hours. This caused *tininitus* very quickly, and was diminished sufficiently to give relief from this symptom, and in a few days was replaced by quinine. Though the pulse rose to 96 and 100, and the appetite continued deficient, the pain diminished, and on the 27th there was none except in the head. She was now able to sit up, but continued quite feeble, and complained much of headache and of pain in the ankles during the months of April and May. Still she gained enough to drive out, but always complained of great weakness, which was but little influenced by gentian, *nux vomica*, iron, and a sufficient amount of nourishing food. Occasional visits only were made, as the principal complaint was of weakness.

Early in May she began to notice slight chills or rigors. These were at first mentioned incidentally as scarcely worthy of notice, but as they became more marked and were accompanied by increased debility and depression of spirits, close inquiries were made. It was then ascertained that they showed a tendency to appear at about nine o'clock in the morning, and that she had had fever in Rome many years before. The possible influence of some malarial poison being borne in mind, twelve grains of quinine were given six hours before the usual time for the appearance of the paroxysm. The result was very encouraging, as the rigor did not return. She continued to take two grains of quinine every three hours, and steadily improved until May 20th, when she looked and felt better than for some time. But at three A. M. on the morning of the 21st there was a rigor, and this was repeated at three P. M., preceded by flushing of the face. The pulse rose to 108 in the morning and 120 in the evening, when the temperature was 104.5°. Still she made but little complaint, except of weakness. Until this time she had sat up the greater part of the day, but was now advised to remain in bed, which she was ready to do. For several days there was no rigor, but as there was a suspicious chilly feeling at nine A. M. on the 23d, twelve grains of quinine were given at three on the following morning, but at noon she had a severe rigor, followed by heat. This recurred at four P. M. on the 25th, but is not again mentioned in the notes until the 29th. During this time the pulse was usually 108 in the morning and 120 in the evening. The temperature varied from 101° to 103°, and on the day of the last rigor rose to 104° in the morning and 104½° in the evening. For a number of days she was troubled with diplopia when looking at things in a certain direction. This she had observed before while taking quinine. There was occasionally a little wandering of the mind when she was only partially roused, but

never any real hallucination. The respiration was quite rapid, being 56 at noon of the 26th. A slight hacking had been noticed for some time, and a full inspiration always excited cough. Repeated examinations of the chest, however, failed to show any pulmonary trouble. The tongue was covered with a white coat. The appetite was moderate, but sufficient milk and oatmeal were taken to secure proper nourishment. The bowels, though at times sluggish, were generally moved without the use of medicine. The urine was examined a number of times. On May 27th the specific gravity was 1017, and there was some albumen, but no casts were found. The nights were often restless, so that bromide of potassium, aconite, and hyoscyamus were used from time to time. She complained of nothing but general weakness and stiffness of the knees. On the night of the 28d there was pain in the left iliac region, which was not mentioned again. On May 25th she was seen in consultation by Dr. Morrill Wyman, who was unable to assign any local cause for the rigors. On May 28th and 29th she was reported as feeling and looking better and brighter than for a long time. The pulse fell to 112, the temperature to 100½°.

At half past one P. M. on May 29th, after a chill, she suddenly complained that the left leg felt "as heavy as lead, cold, and queer," and the limb gradually became numb from the foot up to the groin. When seen, at half past three o'clock, the leg was colder to the hand than the other, the change of temperature having been noticed by the sister immediately after the symptoms showed themselves. Sensation to touch, heat, cold, or pinching was lost. No pulsation was felt in the arteries of the leg, but an examination could not be made above the popliteal region.

Until the rigors were reported there was nothing in the history of the case to excite any particular fear of serious disease. Depression of spirits and excessive devotion to charitable work had caused, as was supposed, such deterioration of health as to explain sufficiently the slow convalescence. The symptoms were only those of a slight rheumatic affection and debility. When the rigors became decided, other disease of a more serious character was feared, but the effect of the quinine was so satisfactory as to encourage the hope that they had a malarial origin. When, however, they returned and were repeated twice on the same day, when the pulse and temperature rose and continued high, fears were expressed of the presence of some serious internal disease, — either inflammation, embolism, or both. A grave suspicion of something of the kind was alone warranted, as repeated questioning and careful examination failed to show any local cause. But the nature of the disease was made clear by the sudden coldness, numbness, loss of sensation, and absence of pulsation in the left foot and leg. Ulcerative endocarditis, with embolism, was at once diagnosticated, and the family were informed of the

very dangerous and probably fatal character of the disease. On the morning following these symptoms she looked brighter than for some time. Pulse 108 in the morning, 100 in the evening. The temperature fell from 103° the previous evening to 100° in the morning and 99° in the evening. She complained only of a dull, constant pain in the left leg, and there was marked tenderness in that groin. No arterial pulsation was felt below the saphenous opening. To the hand the left leg felt cool just below the knee, and a little farther down was quite cold. The surface thermometer applied to the side of the calf showed little if any difference in the actual temperature, but on the following day the rapidity with which it was affected was very much greater in the healthy than in the diseased limb. Irregular dark-red or purplish spots were seen upon the foot, while the skin of the remaining portion, as well as that of most of the leg, had a dusky look. From this time until June 13th, when she died, with the exception of some temporary improvement in the color at times, marked changes for the worse took place in the affected limb. On the 3d the skin of the sole and heel was quite dark, while the color of the rest of the foot was better, but there was no improvement in the temperature. On the 5th an irregular line of demarkation began to show itself, extending downwards and outwards below the anterior tuberosity of the tibia. Below this the leg was dusky, and cold to the hand. On the 7th the ends of the toes felt hard and dry, and the discoloration of the rest of the leg was more marked. On the 9th the toes had evidently shriveled, and the skin of the heel had become dry and hard. By the 11th the line of demarkation had become very obvious and quite vascular, while the limb below was of a dark, dull purple color. Dr. Wyman, who saw the patient in my absence on the 8th, noticed that the pulsation had ceased on the upper part of the femoral artery, and it did not return. The heart was examined repeatedly, but, with the exception of a strong pulsation and some roughness with the first sound near the apex, nothing unusual was noticed; the souffle even, which had been so distinct before the last attack, had disappeared. The respiration was always rapid, generally about 48, until towards the close, when it rose to 66. An examination of the abdomen on the 5th showed that the spleen was apparently enlarged, but the liver was not above the full normal size. The mind was sufficiently clear much of the time, though there was some wandering occasionally, which increased towards the end. The prostration was marked. There was great restlessness, partly owing to pain or discomfort in the affected limb. Liquid nourishment in the form of milk and gruel was given regularly and frequently, and was borne well. The bowels generally acted sufficiently without artificial aid. The temperature, which has already been reported as falling at the time of the obstruction of the arteries, rose but little for several days. It was gen-

erally 100° in the morning, but did not rise above 102.5° in the evening, and was only once reported as high as that. On the 5th of June, however, it rose to 103° in the evening, continued to rise with some fluctuations, and on the 11th was 104° in the morning and 106° in the evening. The pulse continued 120, and rose with the temperature. On the 6th it was 136 in the evening; on the 9th, 148 and difficult to count; on the 12th, 160. Death took place on the 18th.

As it was evident that nothing could be done to remove the condition upon which all the symptoms depended, the treatment was confined to giving relief. Bromide of potassium, chloral, and liquid Dover's powder were mainly relied upon.

An autopsy was made twenty-six hours after death, but out of deference to the wishes of the family was carried no farther than was necessary to ascertain the true character of the disease.

There were some old pleural adhesions, but the lungs were normal. Pericardial surfaces everywhere united by old, firm false membranes. Heart considerably enlarged. Aortal valves thickened and somewhat corrugated. Mitral valve thickened and whiter than usual, but the orifice sufficiently free. On its right or anterior segment was a soft, reddish mass, looking like coagulated and partially decolorized blood, fissured and friable. This was perhaps two thirds of an inch in diameter and a quarter of an inch in thickness. It occupied a shallow depression caused by the destruction of the surface of the valve, and was surrounded and limited by the ragged edge of the healthy lining membrane. Liver considerably enlarged, so that it extended into the left hypochondrium. Spleen increased in size. Imbedded in its substance were irregular masses of a dull, tawny brown color, quite soft, and of various sizes, the largest perhaps an inch and a half through. These resembled partially decomposed fibrinous coagula, and were evidently the result of embolism. Kidneys soft and pale, but not otherwise remarkable. The arteries were examined as far as the common iliac and found pervious.

In volume vi. of Ziemssen's *Handbuch der speciellen Pathologie und Therapie*, page 60, may be found an excellent article upon the subject of "*diphtheritische or ulceröse endocarditis*." Though we are there informed that hardly two cases are known which resemble each other completely, our case illustrates so many points mentioned in the general history of the disease as to make it profitable to call attention to them, particularly as the affection is quite rare. The two forms described, the typhoid and the pyæmic, are both represented. The pain and prostration were followed by rigors, and these by the clear indications of local embolism. We had — at first integrity of mind ending at last in delirium and coma — marked prostration — rapidity of respiration, contrasting strongly with the absence of all appreciable lesion of the

lungs — a high pulse and temperature — rigors repeated frequently, regularly and irregularly — a cessation of the same towards the close — albuminuria, which we are told hardly ever fails — an enlarged spleen — the absence of any complaint of subjective cardiac symptoms, and of physical signs, which has been noticed even when ulceration has occurred, though physical signs are generally found. Vomiting and diarrhoea, which are common, were wanting in our case.

In regard to diagnosis, it is stated that ulcerative endocarditis can be rarely recognized with certainty. It is either entirely overlooked or only suspected. In our case an accurate diagnosis was impossible until the obstruction of the circulation occurred. There may be local cardiac signs which render the diagnosis very probable, but where these fail the disease is liable to be confounded with typhoid and intermittent fever, or other conditions. Though the rigors often recur irregularly, perhaps several times a day, they may be so regular as to simulate those of intermittent fever, while the enlargement of the spleen may also suggest typhoid. If, however, we bear in mind the apyrexia of intermittent fever and the regular course of the temperature in typhoid, we shall be much aided in diagnosis. But the most important point is the previous history of the case. Though recovery is not impossible on theoretical grounds, no case of the kind is known.

UNUSUAL CASE OF OVARIAN DISEASE.

BY E. R. CAMPBELL, M. D., TURNER'S FALLS.

THIS case illustrates in an extraordinary degree the great tolerance of paracentesis. The operation was resorted to one hundred and seventy-four times, and eighteen hundred and thirty pounds of fluid were removed; and when we consider the fact that the operation was performed only when the respiration became so embarrassed that the patient could not assume the horizontal position, it becomes one of the most remarkable cases I have been able to find recorded.

The patient, a maiden lady of about fifty-five years of age, was first tapped March 27, 1871, when a large amount of fluid was removed. Ovariectomy was deemed inadvisable on account of existing adhesions.

During eighteen months after the first operation tapping was resorted to only about once in three months. With few exceptions, during the following years, each succeeding operation was performed at shorter and shorter intervals, until the rapid accumulation of fluid and growth of the tumor necessitated, during the last month of the patient's life, an operation as often as once in three or four days.

The patient died October 16, 1876, nearly sixty-seven months after the tapping was first resorted to. The patient's diet consisted mostly

of eggs and other albuminous food, and during the whole period of the disease she regularly took liberal doses of muriated tincture of iron.

At each operation it was made an important point to empty the sack completely, using either the pump or siphon, thus preventing any escape of fluid into the peritoneal cavity. During the time between the operations the patient manifested a marked cheerfulness of mind, extending over the whole period of the disease, and did considerable ordinary housework. In reviewing the case it might naturally be asked, "What prolonged the life of this patient to such an unusual extent?" Her attending physicians thought it not unreasonable to suppose that her remarkable cheerfulness was an important item in giving tolerance to the operation, and that it materially aided the iron in sustaining the vitality of the system. And again, the endeavor to empty the sack at each operation, thus preventing the fluid from escaping into the peritoneal cavity and causing peritonitis, was undoubtedly a factor in prolonging the patient's life. Post-mortem examination revealed a large multilocular cyst of the left ovary. The solid tumor, which was extensively adherent, weighed thirty pounds.

This case occurred in the practice of Dr. D. Campbell, of Saxton's River, Vermont, but was operated upon by myself several times, and also by Dr. Foss, of Grafton.

RECENT PROGRESS IN PATHOLOGY AND PATHOLOGICAL ANATOMY.

BY E. H. VITE, M. D.

PATHOLOGY.

Metastasis of Tumors. — The theory has long been maintained that secondary tumors may arise from emboli which become transferred by the circulation from primary growths to more or less remote parts of the body.

Cohnheim and Maas¹ have endeavored to ascertain the relation of the embolus to the assumed result: whether the cells of the embolus produce from themselves those of the metastatic nodules, or whether the latter arise from the cells of the diseased organ in consequence of an infection produced by the embolus.

Experiments previously made in this direction with cancerous and sarcomatous emboli have proved negative. Bits of periosteum were therefore introduced into the circulating blood, as it is well known that from their transplantation beneath the skin or between muscles definite forms of tissue may arise, the eventual product being a plate of bone.

Young rabbits, dogs, and fowl were selected for the experiments, and

¹ Virchow's Archiv, 1877, lxx., 161.

the most satisfactory results were obtained from the last. Fragments of periosteum from the tibia were placed in the jugular vein of the same animal under certain precautions, and were carried as emboli to the lungs. The animals were subsequently killed at various intervals after the operation, from three to twenty-seven days. The periosteal embolus was found as a solid cylinder, its shape and diameter corresponding with those of the canal of the artery in which it was contained. Its density and gross appearance rendered it probable that the formation of bone had begun, and the microscope demonstrated the fact that this had taken place. Lamellæ of bone were always found sixteen days after the operation. Proof was thus obtained of the possibility of the formation of bone from bits of periosteum introduced into the interior of blood-vessels. The embolus became vascularized from the *vasa vasorum* of the wall, as in the case of blood-thrombi, and the ossification took place around the vessels. It was consequently inferred that an independent growth and new formation of cells might also take place in cancerous emboli.

It does not follow, however, that the generalization of tumors occurs in this simple, mechanical manner. When the embolus was examined, twenty days after the operation, the periosteum was found to be shriveled, presenting no trace of ossification, and after a month the embolus itself had disappeared. It is therefore to be assumed that in cases of general cancerous affection of the body the individual lacks the power of removing material which is unnecessary for physiological purposes, as occurs in the history of callus. It is not the tumor itself which is malignant, but it becomes so in consequence of the diminished physiological power of resistance on the part of the individual.

It must therefore be concluded at present that so long as a normal metamorphosis of tissue takes place, the individual portions of tumors, which are so often received into the circulating fluids, are simply destroyed. The danger of metastasis begins when this power of destruction is diminished. The experience of the surgeon favors this hypothesis in those cases where apparently benign tumors, which have existed for years, begin to grow, to infiltrate the surrounding tissues, and to become generalized. The dissemination of tumors in a single tissue or system is also thus explained. In multiple cancer of the bones, secondary to cancer of the breast, it is very unlikely that embolism of the osseous tissue alone takes place, but it is much more probable that the bones offer more favorable opportunities for the further development of the cancerous germs. In other words they become destroyed elsewhere, but are not sufficiently opposed in the bones. This theory explains too the unsuccessful results of the attempts at inoculating healthy animals with portions of malignant growths.

Artificial Tuberculosis. — In the experiments hitherto made for the

purpose of producing tuberculosis in the lower animals, it has been doubtful whether the results were not rather to be attributed to the suppurative inflammation, with inspissation of the pus, which regularly follows the operative measures. In order to eliminate this source of error a series of experiments were made by Cohnheim and Salomon.¹ Particles of tuberculous substance were introduced into the anterior chambers of the eyes of rabbits, and after a few days the cornea became quite clear and remained so for several weeks. During this time the general condition of the animal was undisturbed, and the tuberculous fragments became constantly smaller, until finally only minute portions remained. About four weeks after the operation a sudden eruption of exceedingly small, pale-gray nodules appeared in the iris, and in a few days they became larger and white in the centre. They were more numerous also, so that upwards of forty were counted in certain eyes. The iris was swollen and reddened, and hypopion took place; the cornea also became inflamed, softened, and deformed, and at the end of four weeks was covered with a dense pannus.

The microscopical appearance of these nodules was like that of recent tubercles in the human species. The process was not found to extend beyond the eye, even when such material was inserted as gave rise to a general tuberculosis when placed in the abdomen of rabbits and guinea-pigs.

It was inferred from these experiments that tuberculosis from inoculation develops independently of traumatic inflammation, and in rabbits has a period of incubation of more than three weeks.

Intra-Uterine Respiration. — A case of placenta prævia, under the care of Dr. Galabin, is reported,² remarkable among other things for the apparent inhalation of air by the fœtus, which was inferred from the expansion of the left lung to such a degree that it floated in water. It is also stated that during convulsive movements of the fœtus before delivery "a gasping sound was heard from the uterus; this was audible at the other extremity of the small room, and upon auscultation had a startling loudness."

It was supposed that during the operation of turning air had entered the uterus, and as the placenta was detached the child endeavored to breathe. Some four hours later a dead child was extracted. The mother is said to have been between the seventh and eighth months of her fourth pregnancy.

PATHOLOGICAL ANATOMY.

Lymphangioma. — The group of cystic tumors which are apparently composed of dilated lymph vessels forms the subject of a paper by Wegner.³

¹ Wiener medizinische Presse, 1877, xxxvi., 1175.

² The Lancet, April, 1877, 568.

³ Langenbeck's Archiv, 1877, xx., 641.

The congenital forms which have long been known as *macroglossia*, *macrocheilia*, *macromelia*, *hygroma* of the neck, etc., are included under this term, as well as others which may appear later in life. The *ætiology* of all forms is unknown, though the possible relation to traumatic causes may be suspected. The favorite seat of the tumors is the subcutaneous cellular tissue, the deep-seated fatty tissue around the large vessels, especially those of the neck, and the submucous tissue. The region of the body in which the growths have been found are the neck, tongue, cheek, forehead, axilla, thorax, shoulder, perinæum, penis, extremities, kidneys, and mesentery. Diffused and circumscribed forms occur. The former gradually infiltrate the surrounding tissues, the shape of the organ affected being preserved to a greater or less degree. This group is intimately connected with *elephantiasis* of the tongue, lips, cheek, and extremities. The circumscribed forms are found as more or less prominent tumors, which may be as large as a child's head. Their consistency may be firm and elastic, or soft and fluctuating. When the tumors are cut into, the contents escape as a thin serous fluid, except in those cases where they are clotted or mixed with blood, and a soft, spongy, fibrous tissue remains, somewhat resembling a collapsed lung. The spaces within this tissue vary exceedingly in size, are crossed by large and small trabeculæ, and separated by smooth, glistening membranes, which may be perforated like a sieve. Within this mesh-work masses of dense fibrous tissue may be found, as well as fat tissue, and the remains of the preëxisting structures of the diseased part.

These cavities are considered to be lymph spaces, lined with a single layer of flat endothelial cells, and they contain either fluid or clotted lymph. The latter, lymph-thrombus, is homogeneous, soft, and moist, or more or less dry, and may undergo colloid degeneration. Red blood corpuscles, granular corpuscles, fat drops and crystals, colloid globules, and pigment granules may be found in the contents. In addition to the previously mentioned tissues within the meshes of the tumor, circumscribed clusters of lymph corpuscles may be found which resemble lymphatic follicles.

According to the arrangement and shape of the lymph spaces three subdivisions of this group of tumors are made: the simple, cavernous, and cystoid lymphangioma.

The first contains capillary lymph vessels and spaces, which usually form an anastomosing net-work. The cavernous lymphangioma is composed of variously shaped and frequently communicating cavities, visible to the naked eye, and corresponds with the cavernous angioma or the *corpora cavernosa*. The cystoid lymphangioma is apparently composed of large and small cysts, which result from the dilatation of lymph spaces, although the form of the latter is lost and the communication with lymphatics is limited. The spaces may communicate with

the interior of veins, probably in consequence of the absorption of the walls of the latter from pressure, and thus a hæmato-lymphangioma may arise. A lymphangio-sarcoma may occur when the fibrous portions of the tumor assume a sarcomatous character.

The growth of these tumors is constant, slow, and limited, years being necessary for a considerable size to be attained. Periods of total cessation of the growth may be observed, followed by others of rapid progress. Acute enlargement may take place, usually to be regarded as inflammatory, and resulting from the absorption of material from the ulcerated or eroded surface of the tumor.

The simple and cavernous forms are sometimes compressible, which is not the case with the cystoid form, owing to the limited communication of the latter with the efferent lymph vessels.

It is considered that the structure of these tumors may be due to a gradual dilatation of preëxisting lymph channels, analogous to the formation of varicose veins, caused by obstruction of the larger lymphatics from scars, thrombi, inflammation, etc. It is further suggested that a proliferation of the endothelium of the wall of lymph vessels may take place, and within the resulting solid mass of cells cavities arise, which eventually communicate with the physiological spaces. It is also thought possible that lymph spaces may arise within granulation tissue formed in fibrous tissue, and a subsequent communication be established with lymph channels, a heteroplastic new formation as distinguished from the preceding homoplastic variety.

(To be concluded.)

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

BY F. B. GREENOUGH, M. D., SECRETARY.

MAY 28, 1877. *Large Vesical Calculus.*—DR. BUCKMINSTER BROWN showed a calculus, remarkable for its large size. It was taken from the body of an old man after death, many years since.¹ This calculus is composed of uric acid, with a little urate of ammonia. Weight, six and one half ounces. Length, three and one eighth inches. Width, one and seven eighths inches. Circumference at largest part, eight and three eighths inches. Analysis by Professor Bacon.²

Double Congenital Dislocation or Displacement of the Hip.—DR. BUCKMINSTER BROWN showed three photographs of a case of this malformation, which came under his observation in 1873,—a side, a front, and a back view.

The patient was a little girl five years old. She was born in New Hamp-

¹ Believed to have been a patient of Dr. Little, of Salem, and Dr. J. B. Brown, of Boston, about the year 1809.

² Presented by Dr. Brown to the Warren Pathological Museum of the Harvard Medical College.

shire, but had been passing some time in Georgetown, D. C. She was supposed to have had a curvature of the spine from infancy. While in Georgetown, her parents consulted Dr. Josiah Riley, of that city, who referred the case to Dr. Brown to be treated for the spinal curvature. The child had never walked well, tripped easily, and was unable to save herself from falling; was quickly fatigued. Had on a spinal apparatus. Had slight valgus. There was an excessive incurvation in the lumbar region (lordosis), almost angular at junction of the lumbar vertebrae with the sacrum. Some tenderness at this point. On thorough examination the heads of both femurs were found lodged from an inch and a half to two inches above, and slightly backward of their normal position.

Dr. Brown said that these cases are comparatively rare, and are frequently mistaken even by surgeons of distinction for spinal curvature. One he has now under observation was referred to him for treatment of spinal disease. He showed the photographs as an aid to diagnosis. They give at a glance all the characteristic features of the malposition, and would enable one who has seen them readily to recognize the complaint. When the patient is erect, the appearances are as exhibited in the photographs; when recumbent, the limb can be drawn down and pushed up again, traversing a space of from one and a half to three inches, going through what Professor Sayre of New York has aptly designated a telescoping process. In respect to the ætiology of this displacement there is much diversity of opinion. M. Guérin's theory is that the dislocation is caused by muscular spasm, and there is often permanent muscular contraction; that in no case is the cotyloid cavity entirely wanting.

In a letter from Paris on Orthopedic Surgery in Europe, published in the *JOURNAL* in 1846, Dr. Brown gave an account of this surgeon's opinion in regard to these cases, and a description of the course pursued by him in the treatment of three or four cases at that time in the wards of the *Hôpital des Enfants malades*. His theory was founded on the "result of his own observations, on numerous cases of congenital luxation, which he has treated, but more particularly have the various 'post-mortem' examinations, made either by himself or by his assistant, M. Kuhn, confirmed him in this opinion. In every case a cavity has been found, — in many cases, no doubt, extremely shallow, and in adults nearly obliterated, but never entirely."

M. Guérin says, "The head of the femur in all these cases rests on the dorsum of the ilium; the capsular ligament is of necessity much elongated, being stretched according to the extent of the deformity, either one inch and a half, or two, or sometimes even three inches."¹

Cruveilhier states that the displacement of the femur is due to a malformed head and imperfect acetabulum.

Dupuytren says it is owing to defective organization of the germ.

Carnochan considers the dislocation the result of muscular retraction from nervous disturbance, or deficiency, and of a cartilaginous state of portions of the cotyloid cavity, portions which are slow in becoming ossified. He thinks the arrest of development theory totally without foundation.

¹ Orthopedic Surgery in Europe. A letter from Buckminster Brown, M. D., dated Paris, May 19, 1846. *Boston Medical and Surgical Journal*, July 1, 1846.

Brodhurst, of London, says it is always in consequence of preternatural labor, when violent traction has been employed, as in presentation of the nates. He states that in cases otherwise well formed the acetabulum at birth is never malformed.

Dr. Sayre, of New York, thinks it is always congenital malformation of the cavity of the acetabulum. In truth, few writers who have referred to this subject agree in opinion in respect to the cause of this displacement, and some theories advanced are entirely opposed to each other.

DR. JACKSON said that he had had the opportunity of examining the body of an adult patient who had had a dislocation of the femur shortly after birth. The limb was shortened to such an extent that the foot was raised four inches. The motion of the head of the femur on the ilium was very free, and the head itself was about one half absorbed. The cavity of the acetabulum was small, and its contour irregular. There was no appearance on the pelvis of any attempt at the formation of a new socket, but the surface of the ilium over which the head swept was polished smooth. With regard to congenital dislocation he said that he had seen it in a child who was otherwise malformed, and had looked upon it as a part of the malformation. The child had never been able to walk well, was obliged to wear a spinal support, and had a valgus of the right foot. The heads of both femurs were displaced upwards and slightly backwards.

DR. WHEELER spoke of a child born with a congenital dislocation of one hip, where the trouble was not appreciated until it began to try to walk. In this case the parents laid the blame of this condition on the shoulders of the physician who had been in attendance at the birth of the child.

DR. WHITE said that it would be interesting to know whether the large calculus shown by Dr. Brown had been taken from an English subject. He said that the specimens of calculi in the college museum from English subjects were mostly uric acid ones. The size of this specimen is interesting as showing how large a uric acid calculus may become without setting up an irritation of the bladder, and the consequent phosphatic deposit.

Scrofulous Synovitis. — DR. C. P. PUTNAM showed a patient, a boy, suffering with this disease of the right knee and left elbow. The affection of the joints had come on after an attack of measles. The right elbow had recently been similarly affected. The knee had from the first been very decidedly flexed, and although it had been kept extended by dextrine and plaster-of-Paris bandages it had returned to its old posture as soon as the bandages were removed. The pain and suffering had been intense, enough to keep him from moving and to prevent his sleep. Dr. Putnam had put on a very simple and cheap apparatus, which by extension and counter-extension took the pressure from the joints and allowed the boy to walk about and use his limbs with comparative freedom from pain.

OCTOBER 8, 1877. *Fracture of the Patella.* — DR. DWIGHT showed a patient with fracture of the patella, and gave the following account: In October, 1875, he saw the patient for the first time. He was a young man about twenty-three years old, of light make, who had been an officer on a sailing

vessel. About the middle of the preceding June, when off Cape Horn, he was knocked senseless by a heavy sea, and sustained a transverse fracture of the left patella, accompanied with much inflammation and swelling. It was more than two months before he reached Liverpool, during which time he had received no regular treatment, and had used his leg more or less. He spent some six weeks in the hospital at Liverpool, but no serious effort was made to obtain union, and he was dismissed with an apparatus consisting of two bands around the leg, one above, the other below the knee, united by straps, which did little good. When he consulted Dr. Dwight, four months after the injury, there was no trace of ligamentous union, and no apparent thickening of the tissues in front of the joint. Walking was, of course, very seriously interfered with. The patient was very anxious that something should be done. The fragments were put in apposition and held so by a dextrine bandage, but the patient was told that there was little more than a chance of much benefit from it. In twenty-four hours, however, it was apparent that the bandage could not be borne, and it was removed. Dr. Hodges then saw the case in consultation, and it was decided to apply a carefully padded ham-splint, with four straps, and to give up all ideas of further treatment. In the course of the next few weeks the patient received several falls, one of which was quite severe, and caused an acute synovitis of the joint, which, however, readily subsided. He gradually became more expert in walking, and in the spring went to sea again. The patient had returned a few days before, and stated that for a year he had not used the splint. He could walk as fast as most men do when not attempting real speed, and could walk several miles without a cane. He could go up-stairs putting each foot above the other alternately, but on going down-stairs his knee would "give." He could put the broken leg on the seat of a chair and raise himself on to it with but little more of a push than most men would give. On examination the fascia was found thickened, but there was no trace of anything that could be called a ligament between the fragments, which when the knee was strongly flexed were about four and a half inches apart. He maintained that he had more confidence in the injured leg than in the well one. His chief trouble is inability to run.

DR. BIGELOW said that the case was an interesting one, as the mechanics of the joint were strikingly altered by the entire absence of the patella in front of the joint, the leverage of the extensor muscles over the joint being just so much shortened. In point of fact, the place of the patella was supplied by the soft tissues in front of the joint, which Dr. Bigelow found to be somewhat thickened, and with which the fragments had united. The result was a wonderfully good one, but Dr. Bigelow could not understand the patient's statement that that leg was the stronger one.

Spontaneous Fracture and Absorption of the Bones in Locomotor Ataxia. —

DR. J. J. PUTNAM showed several casts of bones taken from a case in Charcot's wards. Casts of the femur, radius, ulna, and scapulæ were exhibited, all of which were more or less wasted, and both scapulæ as well as some of the long bones showed signs of old fractures with subsequent union. He said that in this disease the bones become brittle and break; the joints also are apt to become inflamed, as in dry arthritis, but there is not the same tendency to the

formation of exostoses that there is in the latter disease, and absorption takes place more rapidly. The joints most liable to be affected are the knee, shoulder, and hip, in the above order with regard to frequency, whereas in dry arthritis it is the reverse, the hip being the most and the knee the least frequently affected. The subject is treated by Charcot at some length in his *Leçons sur les Maladies du Système nerveux*. It is strange that under these circumstances union should take place. This disease, as Charcot points out, is not the only affection of the spinal cord which may cause these lesions of the bones. They have been observed to follow direct injuries to the spine, etc. Dr. Putnam said that cases of supposed brutality to insane patients on the part of ward tenders, nurses, etc., where bones were supposed to be broken by rough handling, might be the result of their fragile condition, due to some lesion of the nervous centres.

DR. BIGELOW spoke of a gentleman suffering from locomotor ataxia who had a swelling appear on the elbow, followed by dislocation of that joint.

DR. MINOT said that in that case the course of the disease was exactly that described by Charcot. He had pain about the joint and a swelling, which latter never disappeared altogether.

DR. JACKSON said that union in these cases of diseased bone was an interesting fact; the same had been noticed in cases of rickets. He mentioned the case of a woman who fractured her thigh, having had one of her breasts amputated for cancer. Union of the femur had taken place, but the bone was found to be filled with carcinomatous material.

OCTOBER 22, 1877. *Aneurism of the Aorta*. — DR. TARBELL reported the case. The patient, a stevedore, fifty-nine years old, had seven years ago tumbled into the hold of a vessel, and a bale of merchandise had fallen on his chest. He was troubled with some obscure pains for three years, when after a second accident Dr. Tarbell was first called to see him. At that time he was suffering much pain in his chest. There was a pulsation of left side of thorax, most distinctly felt and seen near cartilages of second and third ribs. Both systolic and diastolic murmur was heard, and the pulsation of right radial artery was perceptibly in advance of left, though the latter symptom was not afterward noticed. The patient kept up and about, having been down on the wharf the day preceding his death, which was three days before. He was suddenly taken with a fit of coughing, expectorated about a pint of blood, and died in a few hours.

DR. CUTLER, who had made the autopsy, showed the specimen, which was a cylindrical aneurism of part of the ascending, the whole of the transverse, and part of the descending aorta. The aneurism was adherent to the left lung, and had perforated it by an orifice which would nearly admit two fingers. The visceral pleura was stripped up for a space two and a half inches wide and five inches long; from the edge of this, rupture and perforation had taken place into the pleural sac, so that hæmorrhage occurred at the same time into the lung and pleural cavity. The left pleural sac was found nearly full of clot and serum. The aorta showed extensive endarteritis. The left ventricle was dilated and hypertrophied. The œsophagus had been compressed over a space three inches in length. None of the other organs showed signs of pressure.

DR. KNIGHT said that he had seen this case several times during the past summer, and thought that Dr. Tarbell was mistaken when he said that he had been at work up to the day before his death, as he thought that he had been confined to the house the greater part of the time for two or three months, and part of that time had lain on his back, and taken large doses of iodide of potassium.

DR. TARBELL said that the patient had stayed at home for two or three weeks after Dr. Knight had first seen him, but that since then he had been down at the wharf most of the time, not working himself, but overseeing the workmen, and that such certainly was the case the day preceding his death.

DR. KNIGHT said that the presence of the diastolic murmur mentioned by Dr. Tarbell had not been explained, as the autopsy did not show whether there was any regurgitation at the mitral valve.

DR. CUTLER said that the heart was opened in such a way as not to injure the aneurism as a specimen, but he was sure that when the left ventricle was opened the auricle was not emptied until the heart was tipped upside down, showing that the mitral valve was sufficient.

Functional Spasm. — DR. J. J. PUTNAM showed a young man afflicted with a rare form of spasm, analogous to some of those recently described by Dr. Weir Mitchell, of Philadelphia. Attention was first called to the peculiarly awkward, swinging gait with which he entered the room. He was then stripped, and when told to put his right hand on his head, or to hold a glass of water at arm's length, the muscles of the shoulders, neck, and arm of the same side, and to some extent of those of the opposite side, were seen to be thrown into violent convulsions. Antagonistic groups of muscles contracting at once, the resulting movements had a peculiar character, as if the patient were wrestling with an unseen antagonist. While he was standing at rest only slight jerking motions of the arm and fingers were to be seen, and fibrillary twitching of the muscles of the shoulders. The muscles principally involved were very powerful, perhaps even more so than the corresponding muscles of the less affected side, and a lateral curvature of the spine, towards the right, existed in the cervical region, with compensatory curves below. As the upper curve seemed to be somewhat exaggerated during the convulsive attacks, it was assumed to have originated in the unequal traction of the muscles on the two sides. This condition had existed for nearly three years in full force, but there had been signs of trouble during several years before that, dating back, as the patient thinks, to a season of prolonged mental distress, through which he passed eight years ago.

The absence of the oscillatory movements characteristic of disseminated sclerosis, as well as of those which occur in typical cases of chorea, was pointed out, but it was remarked that although the clinical distinctions between these different diseases were clear enough, a sort of physiological relationship probably existed between them.

Ulcerative Endocarditis; Embolism of the Arteries of the Left Leg. — DR. ELLIS read a paper on this subject.¹

In answer to a question from Dr. Jackson as to the state of the heart, Dr.

¹ See page 549 of this number.

Ellis said that nine years ago a souffle had been heard, but that there had been no marked cardiac symptoms since the rheumatic attack many years before. The patient had also had some pain in the feet for a time, which had, however, entirely disappeared.

DR. BOWDITCH asked whether this case differed from one of ordinary cardiac disease of rheumatic origin resulting in embolism, and how Dr. Ellis was able to make the diagnosis of ulcerative endocarditis as he had.

DR. ELLIS said that if an endocarditis resulting from rheumatic cardiac affection should come on suddenly and present the acute symptoms that this case did, the differential diagnosis between it and ulcerative endocarditis would be impossible. He had seen a similar case to this previously, and when the rigors, high pulse and temperature, etc., came on, with evidence of embolism, he felt justified in making the diagnosis. These acute constitutional symptoms he thought were due to the inflammation of the endocardium. The indurated masses in the spleen, the result of emboli, were, he said, not of the deep, dark-red color seen in recent plugging of the arteries, nor of the pale yellowish hue found in old embolism, but something between the two, a tawny yellow or brown.

In answer to a question from Dr. Cutler as to whether the color of the embolic indurations was not due to the presence of bacteria, that is micrococci, Dr. Ellis asked if a special form of bacterium was recognized as peculiar to cases of ulcerative endocarditis.

DR. F. C. SHATTUCK said that according to the observations of some German pathologists (Recklinghausen, Orth, and others) the emboli which become detached from the interior of the heart in acute ulcerative or diphtheritic endocarditis contain micrococci in great numbers, and that these organisms are held responsible for the malignant character of the affection. Those miliary embolic abscesses of the skin, for instance, which are said by Orth to occur solely in connection with this affection, are shown by the microscope to inclose each a minute cutaneous vessel, the lumen of which is filled with micrococci. Micrococci are classed by these pathologists as a distinct form of bacteria, appear as very minute granules of uniform size, and closely aggregated together in "nests" or "colonies," do not possess independent motion, are unaffected by boiling in absolute alcohol and ether or by treatment with glacial acetic acid or alkali, and are stained by hæmatoxylin. According to Oertel their presence in the exudation false membranes and underlying tissues is an unfailing characteristic of the diphtheritic process.

DR. BIGELOW said that this was debatable ground. The number of low organisms of this genus is very great, resulting from decomposition and other ferments. A few of them have been classified, and their existence as a recognizable variety apparently settled; as, for example, the bacterium of charbon. The researches of Davaine and Pasteur seem to settle the fact as to this at least. But probably only a few of the great variety of these organisms will ever be distinguishable one from the other by the means of investigation which we possess or ever shall possess.

AIX-LES-BAINS AND MARLIOZ.¹

THERE is no more cheery literature than that composed of treatises upon various health resorts, especially when written by resident physicians to the establishments; the feelings and interests which prompted the artificers of Ephesus to uphold the honor of Diana must have been mild compared with those which dispose the modern resident physician at a watering-place to look favorably upon the healing influences by which he is surrounded. One who, in a moment of sadness, is inclined to take a mournful view of the lot of humanity and of the evils which afflict mankind should pick up one of those little volumes and see how easily they are all dispelled. He will presently find himself eager to lay a wager in favor of mineral water and thermal baths against the curse unto the third and fourth generations, and almost ready to take one as against any chance of genuine punishment to the original evil doer. In any case, after the perusal the depression will have vanished, and the reader will feel refreshed and take a much brighter view of the situation in general. Let him beware, however, lest this be carried too far; even at the instigation of balneotherapy the constitution should not be treated as a house of cards and upset for the pleasure of rebuilding. Another caution not to be found in these books: there is one woe which springs will not cure, but rather tend to aggravate, and that is impecuniosity. Bearing these slight suggestions in mind there is nothing but profit to be derived from the reading of this and kindred books. Mineral springs are often even more fortunate than the gentle rain from heaven, being blessed not only by him who gives and him who takes, but also sometimes by a third, who is thus relieved of a case which had perhaps exhausted all of his ingenuity and some of his patience, and we do not doubt that it is thus with those under consideration. We have every reason to consider the baths of Aix and the waters of Marlioz and Challes as happily complementary of each other. We know that the former are very "highly gifted as regards thermality" (though much less so than our hot springs in Arkansas, in regard to which it is a pity there is not more exact and general information), and that the latter are very strongly sulphurous; we are sure that these waters are administered with skill and discretion by the resident physicians, and they have long been famous for their excellent effects in rheumatic and syphilitic affections. Perhaps after admitting so much we shall seem hypercritical when we say that in this and similar monographs we should like to have a chapter devoted to the diseases and states of the system to which the particular *ingesta* and *circumfusa* in question are *not suited*, with something more precise about the effects upon those whose occupation constantly exposes them to the influence of the waters; and in this case especially we should have liked some of the results of treatment in the hospital for the poor founded by the mother of Napoleon III. As it is, we are almost ready to affirm that there are no disorders of the body at least, which these and perhaps all springs will not cure or greatly alleviate (let us be cautious), and that

¹ *The Spas of Aix-les-Bains and Marlioz.* By FRANCIS BERTIER, M. D., Paris, Physician to Bathing Establishment of Aix-les-Bains and Marlioz. London: J. and A. Churchill. 1877.

the waters, though terrible in their anger towards the thoughtless stranger who does not put himself under proper medical supervision, are very considerate of the native who earns his daily bread in their midst.

THE PRACTITIONER'S REFERENCE BOOK.¹

THIS book is not one of those small pocket compendia whose chief duty seems to be to encumber an already overcrowded pocket, but is a handsomely bound volume, containing in legible type a great variety of information of a character and in a shape most useful to the physician. A glance at its contents will give some idea of the scope of the work. First we find the inevitable metrical weights and measures in a chapter devoted to general information. A chapter is then given to Therapeutic Hints, some fifty pages being set apart for doses. Information is also to be found here about the medication of baths, lists of remedies ordinarily employed in different diseases, obstetric memoranda, poisons, disinfectants, etc., all of which are treated with sufficient fullness to make them available for reference. The chapter on dietetic rules is a practical one, and contains a number of useful hints and receipts. We find also in this book rules for conducting a post-mortem examination, and last in order of mention, but first in the book, the Hippocratic oath. We can cordially recommend it to the profession.

MEDICAL NOTES.

— A distinguished physician and surgeon, Dr. Paul F. Eve, died at Nashville, Tenn., on the 3d instant. He was born in Augusta, Ga., June 27, 1806; graduated at the University of Georgia in 1826; graduated M. D. at the Pennsylvania University in 1828, and afterward studied in Europe. He was a surgeon in the Polish Revolution of 1831. Dr. Eve became professor of surgery in the Medical College of Georgia in 1832; in Louisville, Ky., University in 1849; in the Nashville, Tenn., University in 1850, and in Missouri Medical College in 1868. He was made, in 1870, professor of operative and clinical surgery in the Nashville University. In 1857 he was president of the American Medical Association, and he served as a surgeon in the Confederate army. He is said to have crossed the Atlantic fourteen times, mainly with professional views. He declined professorships in New York and Philadelphia. He had remarkable success as a lithotomist, performing a great number of operations in that branch of surgery.

— Dr. C. G. Frowert reports in the *Medical Record* his experience with ingluvin in a very obstinate case of vomiting in pregnancy. During two preceding pregnancies the patient had suffered extremely from this trouble during nearly the whole time. After trying various remedies Dr. Frowert thought of ingluvin, and began with five grains every two hours. He, in his own words, "continued this for three or four days without any appreciable result

¹ *The Practitioner's Reference Book: Adapted to the Use of the Physician, the Pharmacist, and the Student.* By RICHARD J. DUNGLISON, M. D. Philadelphia: Lindsay and Blackston. 1877. Pp. 341.

other than diminishing the violence of the attacks of retching and vomiting. Increased the dose to *ten grains* every two hours. This seemed to relieve my patient to such an extent that she only vomited before meals, at the sight or smell of food. I then increased the dose to fifteen grains, giving it half an hour before each meal. This soon had the desired effect of controlling the attacks. Continuing the same dose every three hours, the vomiting and nausea ceased entirely in four or five days. She made a complete recovery in the second month of her pregnancy, in three weeks from the time she commenced the use of *ingluvin*."

— Dr. Richard M. Ingalls, a prominent physician in East Boston, died Sunday afternoon at his residence, 11 Central Square, of diphtheria and pneumonia. He was born in Naples, Me., in 1839, and graduated from the Harvard Medical School in 1866. Since graduation he has practiced in East Boston, and was prominent in Masonic circles, being a member of Baalbec Lodge, St. John's Chapter, and William Parkman Commandery.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CLINIC OF PROF. T. GAILLARD THOMAS FOR DISEASES OF WOMEN.

General Subinvolution with Prolapsus of the Uterus and Vagina. — Eliza G., a native of Ireland, and thirty-nine years of age. She has been married sixteen years, and has had seven children, but no miscarriages. The last child was born eight years ago, but she is still living with her husband. She says she has been complaining for three months past, but was quite well before that. She first noticed a little lump in the right side, with pain, which "struck upward" over the hepatic region, and extended as far as the head. She also complains of a "weakness in the back," and suffers from leucorrhœa at times. Her menses are regular, and she never has any trouble with the bladder. This is all she has to tell us, and you will notice how very vague the symptoms are. There is nothing in them whatever to direct our attention to the uterus except the backache and leucorrhœa; but on account of these I thought it was better to make an examination, and when I tell you what I found I am sure you will be not a little surprised to learn the gravity of the affection here present when the symptoms were so trivial. This case shows very conclusively the value of physical diagnosis, and any one who had not resorted to it here would probably have treated the woman for disorder of her liver. I cannot impress upon you too strongly the very great importance of physical exploration, not only in uterine but in all other diseases. Well, on passing my finger into the vagina (which, by the way, I had some difficulty in doing), it encountered the cervix, very much enlarged, within two inches from its entrance. The reason that I had trouble in introducing the finger was that both the anterior and posterior walls of the vagina were prolapsed to a marked degree. With the former the base of the bladder was dragged down, and with the latter the rectum, constituting what is known as a rectocele, so that two distinct tumors were formed at the vulva, the presence of which the patient says she has noticed for some time. On conjoined manipulation the

¹ Concluded from page 546.

body of the uterus is found to be abnormally large, and as the probe passes into its cavity for three and a half inches we judge it to be in a state of subinvolution. Furthermore, the examination reveals that there is no perineum. No cicatricial tissue is present, and we naturally ask what has become of it? The fact is it has become completely spread out, as it were, by the rectocele.

Now, what has taken place? The vagina was weakened at the time of the last pregnancy. Being large and flabby it fell out of the body after the labor, and gradually carried down the rectum with its posterior and the bladder with its anterior wall. Subinvolution of the uterus also occurred, and it is now dragging that organ down too, and will soon have it out of the body. The process of retrograde metamorphosis after parturition was interfered with not only in the vagina and uterus but also in the perineum. The perineum always undergoes a process of preparation and development before labor, and it is just as necessary that involution should take place in it as in the uterus and vagina. The difference between the condition of the perineum at ordinary times and at the close of pregnancy is very evidently shown when we undertake to remove large fibroids, perhaps with the obstetrical forceps, as I have sometimes done. In such cases the perineum invariably yields, while as you know, of course, it is the very rare exception in parturition. The reason is that it has not undergone the necessary preparation for the strain to be brought upon it, which always accompanies utero-gestation. At present our patient is a fair candidate for prolapsus in the third degree, a complete *proci-dentia uteri*.

Such cases as these are difficult to treat satisfactorily. If the time of the menopause had arrived we could count upon the entire disappearance of the subinvolution of the uterus. But some years must yet elapse before that occurs, and I do not hesitate to say that there are no means at our command for reducing the organ to its normal size in such a case as this. I know it is claimed that this can be done by the application of the actual cautery or *potassa fusa* (after the method of Sir Henry Bennett) to the cervix, but it does no good whatever, and only endangers the safety of the patient. This prolapsus of the uterus is taking place by reason of the traction exerted from below, and there are two ways of preventing it from going on any further: the first is for the patient to wear a well-fitting and appropriate pessary to hold up the uterus at the same time that astringent injections are used upon the vagina. The proper pessary for this case is one made of hard rubber, such as I show you now, and consisting of a cup, to receive the hypertrophied cervix, and a supporting stem divided into two branches, one of which curves anteriorly towards the symphysis pubis, and the other posteriorly towards the anus. From the extremity of each of these arms passes an India-rubber band which is attached to an abdominal belt, and the uterus suspended in this way will be able to resist all the dragging force that is exerted upon it from below. The great advantage of this instrument is that the patient can apply it herself, and it should always be removed at night. After a time there will be almost no traction to overcome, for the mere retaining of the vagina in position will gradually remove the engorgement now existing, and its walls will become more and more strengthened by the persistent use of the astringent injections of which I

spoke. If this plan of treatment is adopted I think I can show her to you very greatly improved in the course of a very few months.

The other plan to which I alluded is the operation for the removal of a portion of both the anterior and posterior walls of the vagina and the formation of a firm ridge of support in each. This would prevent any future prolapse of the vagina but not of the uterus.

Retroflexion, with Hyperplasia of the Uterus. — This patient, to whom we have but a few minutes left to devote, comes to us with a diagnosis. She was sent to me by a gynecologist of considerable standing, who stated that she was suffering from ante flexion of the uterus and a small ovarian cyst. But even the best men are liable to mistakes, and if he had examined the case a second time no doubt he would have discovered that this diagnosis was incorrect. Of course, it makes a very great difference to the patient whether she has an ovarian cyst or some comparatively trifling affection, and we cannot be too careful in our diagnoses. On making an examination with the left forefinger in the vagina, and the fingers of the other hand pressed upon the abdomen, I failed to find ante flexion, but detected a body feeling somewhat like an orange behind and below the cervix uteri. Then placing the patient in Sims's position, and raising the side of the table on which the buttocks rest a few inches (as is now my invariable custom in making uterine examinations) so as to exaggerate the position and throw the viscera well forward, I passed the probe and found that it entered the cavity for three inches in a direction downward and backward. Then removing the probe I succeeded in getting two fingers under the supposed ovarian cyst and without any difficulty pushed it up, when I reinserted the probe and found that it passed in the normal curve of the uterus. I now rocked the uterus gently backward and forward by means of the sound without occasioning the patient the slightest uneasiness, and thereby conclusively demonstrated the perfect mobility of the organ. The diagnosis, therefore, was retroflexion, with a hypertrophied and hyperplastic condition of the uterus.

BOSTON CITY HOSPITAL.

SURGICAL CASES OF DR. W. A. B. FIFIELD.

[REPORTED BY W. D. ROBERTSON, HOUSE SURGEON.]

CASE I. *Fracture of Humerus and Radius of the same Arm.* — On the 28th of July a lady, fifty-three years old, while hastily going down-stairs, fell. The right arm being extended to protect her face, in falling her whole weight was projected upon it, and the arm doubled under her. She was brought at once to the hospital, presenting a fracture of the humerus immediately above the condyles, and a Colles fracture of the same arm. By making forcible extension of the arm from the wrist to the axilla it was found that both fractures were perfectly reduced to the normal position of the arm in extension. Upon flexing the elbow to the usual angle for applying the customary internal angular splint it was observed that the lower fragment of the humerus was tilted backwards and downwards.

Considerable effusion about the joint had taken place. It was decided to place the arm from finger-tips to axilla in a straight anterior and posterior splint and two light lateral splints to support the sides of the arm, the whole being well padded with cotton. The following day the patient reported that she had spent a good night, and that the splints were comfortable.

August 3d the splints were removed, and considerable ecchymosis over the points of fractures was noticed. The position of the fragments was good. Splints repadded and reapplied, the arm to be rested upon a pillow.

August 10th. Patient is up and dressed; swelling much subsided; position good.

August 19th. Splints were removed. No deformity either in elbow or wrist. Some union in both fractures.

August 23d. Passive motion of elbow ordered each day.

August 28th. Passive motion under ether; good union had taken place; position perfect. Omit splints, and apply a bandage from the wrist to above the elbow.

September 6th. Patient can flex elbow quite a distance, and has considerable motion in wrist. Flannel bandage was applied to arm, and the patient discharged well. The treatment of extension adopted in this case, which was opposite to the customary one, has been highly recommended by French authorities on these grounds: that the power of flexion of the arm is four times greater than that of extension, therefore better use is obtained after active treatment has been suspended; that the parts are more exactly kept in position anatomically by extension than by flexion, and more easily so maintained.

CASE II. *Compound Fracture of the Metatarsus.*—Frank F., horse-car conductor, twenty-one years old, while stepping from his car, September 27th, slipped, the car passing over his left foot, at about the middle of the metatarsus, fracturing the second and third metatarsal bones, producing two clean-cut wounds communicating with the fractured parts. Crepitus and mobility present. The probe touched the denuded bones. The patient was placed upon a posterior (calf) splint with a sliding foot-rest. The wounds were sealed with compound tincture of benzoin.

September 28th. No pain. Passed a comfortable night.

September 29th. Dressings removed. Both wounds healed by first intention. No discharge. No pain.

October 3d. Complains of the upper strap of the splint below the knee being too tight, and it has caused some swelling of the leg. No heat over fracture, nor pain on light pressure.

October 4th. Swelling completely subsided since the loosening of strap. The skin looks perfectly healthy. Wounds quiet.

October 16th. Patient passed a restless night owing to a disturbance in the ward from a delirious patient, and kicked the dressings nearly off. The skin is chafed by the casting about, and looks red and tender. The wounds, however, present no indication of deep suppuration, and are only superficially tender. Omit benzoin, and apply simple cerate.

October 20th. Skin in a healthy suppurating state. No deep suppuration. Omit simple cerate, and apply pulverized iodoform. Good union in fragments.

October 26th. Is sitting up and moves about wards on crutches. Omit iodoform and apply strapping. Can bear his weight on the foot without pain.

November 1st. Omit all dressing.

November 3d. Discharged, well.

There has not been at any time deep suppuration as might be expected from a compound fracture, and not until the second week, when the parts were roughly chafed, did the benzoin produce any irritation of the skin.

There is no danger of sealing up a similar wound from the air even when compound fractures exist below, since the pulse, temperature, and adjacent glands, as well as the part itself, all constitute so ready and faithful an index of the approach of the bad effects of such treatment, and since the remedy, namely, the reproduction of its compound nature by an incision, is so easy. A number of similar injuries have been treated with this dressing in the wards with most favorable results.

CASE III. *Fracture of the Pelvis, with Recovery.*—William K., forty two years old, upon the 22d of September fell down stairs, sustaining a fracture of the crest of the ilium and a slight scalp wound. The fragment was held by the soft parts in tolerable position over the seat of its detachment. It was therefore decided that no dressing was needed. Crepitus and the mobility of fragment was easily obtained upon motion of the thigh or pelvis. The following day the patient complained of extreme tenderness across the abdomen, which was distended. Pulse rapid, bowels constipated. Turpentine stupes were applied to abdomen, and the following stimulating injection given with good result:—

R $\bar{y}$ Soap suds		Oi.
Olive oil		3 ij.
Turpentine		ij.

followed by a suppository containing two grains of opium and half a grain of extract of belladonna every six hours.

The next day the tympanites had nearly disappeared, the tenderness was much diminished, and the pulse fell to nearly normal. Patient complained of some pain and stiffness in the region of fracture and great pain on motion of leg of affected side. Omit suppository.

September 28th. Complains of loss of appetite and weakness. Ordered brandy, four ounces per diem.

October 2d. General condition much improved. Appetite good. Bowels regular. No tenderness over the seat of fracture, which seems to have united.

October 5th. Patient allowed to move about the ward a little. Says that upon standing on the leg to walk he feels "a grating" half-way between the pubes and anterior superior spine. No crepitus can be detected on manipulation, but the patient was ordered to bed.

October 16th. Union is firm. Can walk by the aid of crutches without pain. The patient continued to walk with crutches another week, and was discharged, well, November 2d, complaining of nothing but a slight stiffness of the thigh of the affected side.

CASE IV. *Fracture of the Pelvis; Recovery.*—Charles D., watchman, on the night of the 3d of August, while attempting to catch an ascending

elevator, missed his mark, fell between the elevator and the floor, and was dragged up three flights before the elevator could be controlled. He was immediately brought to the hospital, presenting a fracture of the pelvis, as shown by crepitus obtained by grasping the anterior spines and forcing them apart; also upon rotation and flexion of the left thigh, which lay with the foot everted in a powerless condition. Upon rotating the thigh when the pelvis was held immovable, the trochanters described their proper circle, and the crepitus was almost absent; but upon rotating the thigh, the knee being flexed to give a leverage, the pelvis unsupported, the crest of the ilium was seen to rotate with the leg, crepitus being very marked on placing the hand upon a point halfway between the symphysis of the pubes and the anterior superior spine. Upon rotation of the leg, or spreading the anterior spines apart, pain was complained of in the sacrum. The shock was slight. The urine drawn by catheter not bloody. No other apparent injuries. A broad band of strong cloth, with buckles attached to readjust to the form of the body, was ordered to be applied to the pelvis. The next day the patient had retention of urine, with great tenderness over the seat of fracture. Morphine *pro re nata* and liquid diet. The following day, the 5th of August, symptoms of peritonitis appeared. A poultice was applied to abdomen and morphia given subcutaneously.

August 6th. Tympanitis still present. Omit poultice. Give injection.

R $\bar{y}$ Soap suds	Oi.
Olive oil	3 ij.
Turpentine	3 ij.

Turpentine stupes to abdomen. Follow the injection, after evacuation, by the following suppository:—

R $\bar{y}$ Belladonna	gr. $\frac{1}{2}$
Pulv. opii	gr. ij.

every eight hours.

August 8th. Abdomen less tender. Retention has disappeared. Discontinue the suppositories. The patient complains of headache. Give bromide of potassium, forty grains every four hours until sleep.

August 10th. No headache. Bowels and urine normal. Tenderness over fracture and enlarged adjacent glands.

August 20th. No change. Feels comfortable, except on motion.

September 3d. Can sit up in bed without much pain. Tenderness present over the ramus of right os pubis, but no crepitus.

September 14th. Can walk about wards on crutches and sit up in a chair without pain.

September 29th. Leg still somewhat weak and slightly everted. No tenderness over fracture. Walks well with crutches. Discharged, nearly well.

CASE V. *Hydrocele*. — Repeated simple tapping. Tapping with injection of iodine. Incision into the tunica vaginalis by Lister's method, with extensive sloughing of the scrotum.

The patient, William M., having been repeatedly tapped for hydrocele in the different public surgeries in town, came to the hospital for the radical cure of the same. This was done in the spring of 1877, the patient continuing as an outpatient, unsuccessfully. In midsummer he returned for treatment, and at the request of the visiting surgeon the house surgeon tapped the hydrocele, evac-

uated the fluid, and injected a four-ounce syringeful of the tincture of iodine. The following day considerable tenderness and pain was present in the part, but no suppuration occurred, and the patient was discharged after remaining in the hospital two weeks.

Upon the 8th of August, some four weeks afterwards, the patient returned with a considerable collection of fluid, tired out with the many attempts at cure. Dr. Fifield made an incision into the tunica vaginalis, laying bare the testicle under the carbolic spray, and applied the carbolized gauze and protective mackintosh after Lister's directions.

August 9th. Scrotum red, painful, and much swollen. Temperature 103°; pulse 110. Tympanites, anorexia, vomiting, and extreme restlessness.

Omit Lister's dressing. Apply poultice. Give two grains of quinia every three hours, opium as the occasion requires, and brandy and beef tea, an ounce and a half of each every four hours. Turpentine stupes to abdomen.

August 10th. Scrotum looks badly. Edges of wound sloughy. Very offensive odor to discharge. Apply poultice saturated with liquor sodæ chlorinate every two hours.

August 12th. Tympanites diminished somewhat. Pulse 90; temperature 100°. Discharge from incision stopped. The whole of the right half of scrotum has sloughed.

August 15th. Slough is extending to both sides of scrotum, and is separating.

August 19th. Slough has extended to the root of the penis, and now involves all but the posterior aspect of the scrotum. Temperature 101°.

August 20th. Slough separated, and the testicles, which are bare, present healthy granulations. Temperature 99°. Testicles supported by broad plaster across thighs.

September 5th. Small abscess in perinæum opened by Dr. Fifield.

September 10th. Testicles granulating well; discharge moderate and healthy in character. Twelve grafts inserted and protected by a wire cage enveloping the testes, and secured in position by adhesive plaster.

September 13th. Five grafts took well. Fourteen more inserted to-day. Edges of wound cicatrizing fast.

September 18th. Eleven grafts in all have taken, and are spreading rapidly. The edges also filling in fast.

September 26th. Patient sits up every day. General condition good.

October 16th. The testicles are all healed in by cicatrization.

Patient discharged, well.

THE ABUSE OF MEDICAL CHARITIES.

Messrs. EDITORS.—Permit me to make a few observations upon your editorial upon Out-Patients in the JOURNAL of the 1st inst.

I must insist that your statement that in the discussion of the subject of the abuse of medical charities "we have simply a quarrel between the old litigants, the 'outs' and the 'ins,'" is unwarranted and calculated to cast unmerited reproach upon the cause. While it is not to be supposed that you intend to dis-

credit the effort to bring about a reform, it is unfortunate that you adopted a line of argument usually resorted to to attain that end. I must personally disclaim all interest in the question of "outs" and "ins," and protest against the injustice of the imputation that this is "simply a quarrel" of any sort. One can but feel that you pay a poor compliment to those members of the profession and managers of medical journals who have devoted so much earnest attention to the matter.

You ask me "whether the want of moral sense is not manifested as clearly in begging from an individual as from an institution." Possibly begging may not betray any lack of moral sense whatever, but the attempt to impose upon an institution or an individual does, though the result in the two cases will be widely different. The unworthy applicant enters the dispensary confident in his ability to accomplish his ends, and soon retires complacently to swallow his share of the hundred and thirteen thousand recipes annually dispensed, while his visit to the individual is liable to end in the payment of a fee, and his draught, obtained at the apothecary's, is imbittered by the thought that he is obliged to pay for it. Morally the result may be much the same, though unsuccessful iniquity is the more demoralizing, but the result to the individual doctor is more satisfactory. We cannot prevent attempts to swindle, but we may perhaps render the efforts ineffectual. Is n't it our duty to try to do so?

You say that "if a man has no means to support himself for at least several years of practice he has no business to become a physician." It is true that under the present condition of affairs a man had better not become a physician, but you cannot urge that fact as a sufficient excuse for fostering the "immense amount of imposition" which you admit, and which inevitably tends to intensify the struggle for existence of a considerable portion of the profession. Looking at the matter in the light of the "lamp of experience," it may safely be said that it will be a sad day for medical science when the profession draws its recruits solely from the ranks of the wealthy. Take from the sum total of medical knowledge the contributions of those who entered the profession with nothing to depend upon save their brains and the habits of hard labor born of poverty, and the practice of medicine would partake more of the mediæval character than would be agreeable or beneficial to the patient. When a medical aristocracy founded upon wealth shall have been established in this country, a system of wholesale indiscriminating medical relief may be justifiable, but not till then. If the defense of the present system involves the necessity of drawing a money line in the admissions to the profession it may ultimately prove to be more creditable not to undertake its defense.

You deny that the younger men "suffer materially by the immense amount of imposition" upon medical charities. Experience and observation have brought me to exactly the opposite conclusion. I agree with you in the statement that "our profession is not a trade;" but it is an *occupation* by which men gain a livelihood, and I have yet to hear the first particle of evidence tending to show that it should not be conducted on strict business principles.

You quote with approval Mr. R. Davy's (not Dr. Pavy's, as you are made to say by an error of the types, probably) remark in an introductory lecture

that none should enter medicine "without a willingness to trust to another world for the reward of a vast amount of labor in this one." No doubt this statement was more impressive and appropriate when addressed to a body of students than it is when made to an audience composed of your readers. Recognizing every obligation to care for the needy and thereby "lay up their treasure above," they will insist, even at the risk of the charge of being infected with a "mercenary" or "trade" spirit, in demanding a reasonable portion of their reward here below, trusting for their vindication to the language of the greatest of all Teachers, uttered when He sent into the world his messengers on a mission higher than ours, "The laborer is worthy of his hire."

Very respectfully yours,

ORVILLE T. ROGERS.

DORCHESTER, November 9, 1877.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING NOVEMBER 3, 1877.

	Estimated Population, July 1, 1877.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1876.
New York	1,077,228	447	21.58	27.46
Philadelphia	850,856	238	14.55	22.88
Brooklyn	527,830	195	19.21	24.31
Chicago	420,000	111	13.74	20.41
Boston	363,940	121	17.29	23.39
Providence	103,000	30	15.14	18.34
Worcester	52,977	25	24.54	22.00
Lowell	53,678	22	21.31	22.21
Cambridge	51,572	13	13.11	20.54
Fall River	50,372	17	17.55	22.04
Lawrence	37,626	15	20.73	23.32
Lynn	34,524	18	27.10	21.37
Springfield	32,976	10	15.77	19.69
Salem	26,739	5	9.72	23.57

BOSTON SOCIETY FOR MEDICAL OBSERVATION. — At a meeting of the society to be held on Monday evening next, at eight o'clock, at its rooms, 36 Temple Place, Dr. McCollom will read a paper upon Delirium Tremens.

BOOKS AND PAMPHLETS RECEIVED. — On the Nature, Origin, and Prevention of Puerperal Fever. By W. T. Lusk, M. D., Professor of Obstetrics and Diseases of Children in Bellevue Hospital Medical College, New York. (Extracted from the Transactions of the International Medical Congress, Philadelphia, September, 1876.)

The Virus of Venereal Sores: Its Unity or Duality. By Freeman J. Bumstead, M. D., late Professor of Venereal Diseases in the College of Physicians and Surgeons, New York (Extracted from the Transactions of the International Medical Congress, Philadelphia, September, 1876.)

Physician's Case-Record Ledger. Cincinnati: Robert Clarke & Co. 1877.

Physician's Pocket Case, Record, and Prescription Blank Book. Cincinnati: Robert Clarke & Co. 1875.

The Columbia Hospital and Lying-in Asylum. (From the Richmond and Louisville Medical Journal.)